



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,546	12/02/2005	Brian Douglas Smith	P-356.36 (PCT) (US)	2962
30544	7590	10/05/2009	EXAMINER	
JACKSON WALKER, L.L.P. 112 E. PECAN, SUITE 2400 SAN ANTONIO, TX 78205				MONIKANG, GEORGE C
ART UNIT		PAPER NUMBER		
2614				
NOTIFICATION DATE			DELIVERY MODE	
10/05/2009			ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dmunsch@jw.com  
cvelie@jw.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/559,546	SMITH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	GEORGE C. MONIKANG	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 June 2009.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 35-39 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 35-39 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. 10/559,546.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments filed 6/2/2009 with respect to the rejection(s) of claim(s) 35-39 under Allaei's admitted prior art have been fully considered and are persuasive. However, upon further consideration, the claimed invention is been rejected in view of Allaei's invention, US Patent 6957516.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 35, 38-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Allaei, US Patent 6957516.

Re Claim 35, Allaei discloses a noise control device for a glass window in a building, comprising an audio frequency sensor attachable to a face pane surface of said window interior of outer edge of said window (col. 6, line 58 through col. 7, line 33: actuators and sensors are attached to window), an encoder interface adapted to receive signals from said audio frequency sensor (col. 6, line 58 through col. 7, line 33: actuators and sensors are attached to window for sensing and cancelling noise signals);

its implicit that an encoder interface is part of the processing circuitry to carry out noise cancellation), said encoder interface including processing means for detecting in a received signal a predetermined characteristic of noise external to said building (col. 6, line 58 through col. 7, line 33: actuators and sensors are attached to window), for generating a cancellation signal and for supplying said cancellation signal to an audio frequency actuator directly attached to the glass of the window (col. 6, line 58 through col. 7, line 33: actuators and sensors are attached to window) and adapted to couple said signal into the glass in the plane of said face pane surface to cause the glass to radiate the acoustic antiphase signal into the building to reduce the perceived intensity of the external noise in the building (col. 7, lines 9-18; col. 7, lines 19-33: voltage control signal is anti vibration voltage; therefore to cancel the vibration by the window caused by Vsense in fig. 10, the system generates an anti vibration signal Vc).

Re Claim 38, Allaei discloses a noise control device according to claim 35, wherein the predetermined characteristic is indicative of the noise of an airplane flying over said building (col. 1, lines 5-7: system is designed to reduce any noise outside the window).

Re Claim 39, Allaei discloses a noise control device according to claim 35, wherein the predetermined characteristic is indicative of traffic noise (col. 1, lines 5-7: system is designed to reduce any noise outside the window).

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allaei, US Patent 6957516 B2 as applied to claim 35 above, in view of Pelrine et al, US Patent 6343129 B1.

Re Claim 36, Allaei discloses a noise control device according to Claim 35, but fails to disclose wherein the microphone and the acoustic actuator are combined into a single device as taught in Pelrine et al (*Pelrine et al, col. 4, lines 59-63*). It would have been obvious to use the microphone acoustic detector of Pelrine et al (*Pelrine et al, col. 4, lines 59-63*) with the noise control device of Allaei for the purpose of picking up external noise to be cancelled.

2. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allaei, US Patent 6957516 B2 and Pelrine et al, US Patent 6343129 B1, as applied to claim 36 above, in view of Wan, US Patent 5,978,489.

Re Claim 37, the combined teachings of Allaei and Pelrine et al disclose the noise control device according to claim 36, but fail to disclose wherein said single device is a magnetostrictive actuator as taught in Wan (*Wan, col. 2, lines 41-45*). It would have been obvious to use the magnetostrictive actuator of Wan (*Wan, col. 2, lines 41-45*) with the noise control device of Allaei and Pelrine et al for the purpose of changing the actuators shape when they are subjected to a magnetic field.

### Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE C. MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on M-F. alt Fri. Off 7:30am-5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George C Monikang/  
Examiner, Art Unit 2614

9/22/2009

/Vivian Chin/  
Supervisory Patent Examiner, Art Unit 2614